

Claims

No claims are being amended, canceled or added at this time. All pending claims are reproduced below.

1. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:
 - a housing having an inlet and an outlet;
 - a voltage generator; and
 - an electrode assembly including:
 - a first array of electrodes having at least two first electrodes; and
 - a second array of electrodes having at least three second electrodes electrically connected to one another, located downstream from said first array, said at least three second electrodes including two outermost second electrodes and one or more inner second electrode located between said outermost second electrodes, wherein each said inner second electrode in said second array is a greater distance downstream from said first array than said outermost second electrodes in said second array;

wherein said voltage generator provides a voltage potential difference between said first array of electrodes and said second array of electrodes.
- 2.-3. (Canceled)
4. (Original): The electro-kinetic air transporter-conditioner as recited in claim 1, wherein said first array of electrodes has at least one electrode that shares at least one characteristic from a group consisting of (i) a rod-shaped wire, (ii) a spiral coil, (iii) a curved wire, and (iv) a flat spiral wire.
5. (Original): The electro-kinetic air transporter-conditioner as recited in claim 1, wherein said second array of electrodes includes at least one electrode with a characteristic selected from a group consisting of (i) an elongated cylindrical tube, (ii) an electrode with a U-shaped cross-section, (iii) an electrode with an L-shaped cross-section, (iv) an electrode with a

rod-shaped cross-section, and (v) an electrode with a front section and a tail section located at an angle to the front section.

6. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 1, wherein the air transporter-conditioner further includes a focus electrode located upstream of said first array of electrodes.

7. (Original): The electro-kinetic air transporter-conditioner as recited in claim 1, wherein the air transporter-conditioner further includes a trailing electrode located downstream of said second array of electrodes.

8. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:
a housing having an inlet and an outlet;
a voltage generator; and
an electrode assembly electrically connected to said voltage generator, said electrode assembly creates an airflow from said inlet to said outlet when said voltage generator is energized, said electrode assembly includes:
a first array of electrodes, aligned to define a first plane; and
a second array of electrodes electrically connected to one another, including two outermost second electrodes, each having a nose, said nose of each said outermost second electrodes aligned to define a second plane parallel to said first plane, and one or more inner second electrodes recessed from said second plane so that each inner second electrode is further downstream from said first array of electrodes than said outermost second electrodes.

9. (Original): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein said first array of electrodes includes at least one electrode that shares at least one characteristic from a group consisting of (i) a rod-shaped wire, (ii) a spiral coil, (iii) a curved wire, and (iv) a flat spiral wire.

10. (Original): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein said second array of electrodes includes at least one electrode with a characteristic selected from a group consisting of (i) an elongated cylindrical tube, (ii) an electrode with a U-shaped cross-section, (iii) an electrode with an L-shaped cross-section, (iv) an electrode with a rod-shaped cross-section, and (v) an electrode with a front section and a tail section located at an angle to the front section.

11. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein the air transporter-conditioner further includes a focus electrode located upstream of said first array of electrodes.

12. (Original): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein the air transporter-conditioner further includes a trailing electrode located downstream of said second array of electrodes.

13. (Original): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein said innermost electrode is 2-12mm further downstream from said first array of electrodes than said outermost electrodes.

14. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:
a housing having an inlet and an outlet;
a voltage generator disposed within said housing;
an electrode assembly electrically connected to said voltage generator, said electrode assembly creates an airflow from said inlet to said outlet when said voltage generator is energized, said electrode assembly includes:
a first array of electrodes, including N first electrodes, where $N \geq 2$; and
a second array of electrodes including at least N+1 second electrodes electrically connected to one another, said second array including two outermost second electrodes, and N-1 inner second electrodes located between said outermost second electrodes and a greater distance downstream from said first array than said outermost second electrodes.

15. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:

a housing having an inlet and an outlet;

a voltage generator disposed within said housing;

an electrode assembly, electrically connected to said voltage generator, said electrode assembly creates an airflow from said inlet to said outlet when said high voltage generator is energized, said electrode assembly includes:

a plurality of ion emitter electrodes; and

a plurality of ion collector electrodes electrically connected to one another and located downstream from, said ion emitter electrodes, one or more of said ion collector electrodes receives ions from principally two of said ion emitter electrodes and one or more of said ion collectors electrodes receives ions from principally one of said ion emitter electrodes, said one or more ion collector electrodes that receives ions from principally two of said ion emitter electrodes being located further downstream from said ion emitter electrodes than said one or more ion collector electrode that receives ions from principally one of said ion emitter electrodes.

16. (Original): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein said ion emitting electrodes includes at least one electrode that shares at least one characteristic from a group consisting of (i) a rod-shaped wire, (ii) a spiral coil, (iii) a curved wire, and (iv) a flat spiral wire.

17. (Original): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein said ion collecting electrodes includes at least one electrode with a characteristic selected from a group consisting of (i) an elongated cylindrical tube, (ii) an electrode with a U-shaped cross-section, (iii) an electrode with an L-shaped cross-section, (iv) an electrode with a rod-shaped cross-section, and (v) an electrode with a front section and a tail section located at an angle to the front section.

18. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein the air transporter-conditioner further includes a focus electrode located upstream of said ion emitting electrodes.

19. (Original): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein the air transporter-conditioner further includes a trailing electrode located downstream of said ion collecting electrodes.

20. (Original): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein two of said ion collector electrodes receive ions from principally two ion emitting electrodes and are located an equal distance downstream from said plurality of ion emitter electrodes.

21. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:
a housing having an inlet and an outlet;
a voltage generator disposed within said housing; and
an electrode assembly, electrically connected to said voltage generator, said electrode assembly creates an airflow in a downstream direction from said inlet to said outlet when said voltage generator is energized, said electrode assembly includes:
a first array of electrodes, including at least two electrodes;
a second array of electrodes electrically connected to one another, including two outermost electrodes, and at least one electrode located between said outermost electrodes, each said electrode located between said outermost electrodes being located further downstream from said first array of electrodes than said outermost electrodes.

22. (Original): The electro-kinetic air transporter-conditioner as recited in claim 21, wherein the air transporter-conditioner further includes a trailing electrode located downstream of second array of electrodes.

23.-29. (Canceled)

30. (Original): The electro-kinetic air transporter-conditioner of claim 1 wherein all of the second electrodes are of the same configuration and size.

31. (Previously Presented): The electro-kinetic air transporter-conditioner of claim 8 wherein all of the electrodes of the second array of electrodes are of the same configuration and size.

32. (Original): The electro-kinetic air transporter-conditioner of claim 14 wherein all of the second electrodes of the second array of electrodes are of the same configuration and size.

33. (Original): The electro-kinetic air transporter-conditioner of claim 15 wherein all of the collector electrodes are of the same configuration and size.

34. (Original): The electro-kinetic air transporter-conditioner of claim 21 wherein all of the electrodes of the second array of electrodes are of the same configuration and size.

35. (Previously Presented): The electro-kinetic air transporter-conditioner of claim 37 wherein all of the electrodes of the second array of electrodes are of the same configuration and size.

36. (Canceled)

37. (Original): An electro-kinetic air transporter-conditioner comprising:
a housing having an inlet and an outlet;
a voltage generator;
an electrode assembly electrically connected to said voltage generator, said electrode assembly creates an airflow from said inlet to said outlet when said voltage generator is energized, said electrode assembly including:
a first array of electrodes;
a second array of second electrodes located downstream of said first electrode;
and

means for equalizing an electrical field created across the second array.

38. (Original): The electro-kinetic air transporter-conditioner of claim 37 wherein each of said second electrodes includes an upstream nose that is closer to the first electrode than the rest of the second electrodes, said equalizing means includes means for equalizing an electrical field created across the nose of the second electrodes.

39. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 1, wherein each said second electrode includes a substantially flat collecting surface that extends downstream from said first array.

40. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 8, wherein each said second electrode includes a substantially flat collecting surface that extends downstream from said first array.

41. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 14, wherein each said second electrode includes a substantially flat collecting surface that extends downstream from said first array.

42. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 15, wherein each of said ion collector electrodes includes a substantially flat collecting surface that extends downstream from said plurality of ion emitter electrodes.

43. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 21, wherein each electrode in said second array includes a substantially flat collecting surface that extends downstream from said first array.

44. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:
at least two emitter electrodes electrically connected to one another;

at least three collector electrodes electrically connected to one another, located downstream from said emitter electrodes, said at least three collector electrodes including two outermost collector electrodes and one or more inner collector electrode located between said outermost collector electrodes, wherein each said inner collector electrode is a greater distance downstream from said emitter electrodes than said outermost collector electrodes; and

a voltage generator to provide a voltage potential difference between said emitter electrodes and said collector electrodes.

45. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 44, wherein each said collector electrode includes a substantially flat collecting surface that extends downstream from said emitter electrodes.

46. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:

a plurality of first electrodes electrically connected to one another, aligned to define a first plane; and

a plurality of second electrodes electrically connected to one another, including two outermost second electrodes, each having a nose, said nose of each said outermost second electrodes aligned to define a second plane parallel to said first plane, and one or more inner second electrodes recessed from said second plane so that each inner second electrode is further downstream from said first plane than said outermost second electrodes; and

a voltage generator to provide a voltage potential difference between said first electrodes and said second electrodes.

47. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 46, wherein each said second electrode includes a substantially flat collecting surface that extends downstream from said first electrodes.

48. (Previously Presented): An electro-kinetic air transporter-conditioner, comprising:

at least two electrodes electrically connected to one another;

at least three second electrodes electrically connected to one another, including two outermost electrodes, and at least one electrode located between said outermost electrodes, each said electrode located between said outermost electrodes being located further downstream from said first electrodes than said outermost electrodes; and

a voltage generator to provide a voltage potential difference between said first electrodes and said second electrodes.

49. (Previously Presented): The electro-kinetic air transporter-conditioner as recited in claim 48, wherein each said second electrode includes a substantially flat collecting surface that extends downstream from said first electrodes.